ABSTRACT

[47]   Power conservation may be achieved in a front end system by disabling a segment builder unless program flow indicates a sufficient likelihood of segment reuse. Power normally spent in collecting decoded instructions, detecting segment beginning and end conditions and storing instruction segments is conserved by disabling those circuits that perform these functions. An access filter may maintain a running count of the number of times instructions are read from an instruction cache and may enable the segment construction and storage circuits if the running count meets or exceeds a predetermined threshold.